

REMARKS

Claims 1, 2 and 4-13 are pending in this application. Claim 1 is the only independent claim.

By this amendment, claims 1, 4, 6 and 9-11 are amended, and claim 3 is canceled without prejudice or disclaimer thereto. In addition, a new Abstract is attached hereto.

Reconsideration in view of the above amendments and following remarks is respectfully solicited.

Allowable Subject Matter

Applicant notes with appreciation the indication on page 11 of the Office Action that claims 12 and 13 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. However, Applicant respectfully submits that this is not necessary in view of the following remarks.

The Claim Objections Are Obviated

The Office Action objects to claim 1 for minor informalities contained therein. This objection is respectfully traversed.

As for the objection to claim 1, Applicant respectfully submits that the usage of the term "secondary electric powers" is appropriate given that applicant is describing more than one power/voltage output.

The Examiner alleges that such a term is not typical. There is no requirement that a term be typical. All that is required is that the written description clearly defines the term. Applicant respectfully points out that the written description and drawings clearly set forth that there is a plurality of "powers" beings outputted and as such the applicant can act as his or her own lexicographer.

Furthermore, each figure in the present application shows secondary windings 13b and 13c. Thus, the term "secondary" is appropriate in view of the language "produce secondary electric powers applied from the multiple secondary windings to the loads", as set forth in the claims.

Accordingly, withdrawal of the objection to claim 1 is respectfully solicited.

The Claims Satisfy The Requirements Of
35 U.S.C. §112, 1st and 2nd Paragraphs

The Office Action makes the following rejections:

- (1) claim 6 is rejected under 35 U.S.C. §112, 1st paragraph as failing to comply with the enablement requirement; and
- (2) claim 2 is rejected under 35 U.S.C. §112, 2nd paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention;

These rejections are respectfully traversed.

Applicant respectfully submits that claim 6 does indeed comply with the enablement requirement. For example, the paragraph bridging our page 20 to page 21 and the first full paragraph on page 21 of the present specification reads (emphasis added):

“Figure 2 is a block diagram showing an electrical construction of the power supply with no short-circuit device 18. As shown in the figure, in the construction, there is provided a switching device 28 in series with the first load L1 on the output line LS1. Still referring to Figure 2, the switching device 28 can be built around a field effect transistor.

In this construction, when the detected value of the output voltage Vo2a has reached or exceeded a predefined value, the second output voltage sensor circuit 17 opens the switching device 28, hence the output line to the first load L1.”

Furthermore, the first full paragraph on page 22 reads:

“In other words, according to the construction [of Figure 3], when an increase in the output voltage Vo2a is detected, the second output voltage sensor circuit 17 first opens the switching device 28 to terminate the output to the first secondary circuit SC1.”

As such, at least for the reasons and citations noted above, Applicant respectfully submits that the Examiner's assertions that the specification or drawings fails to disclose a switching device on the output line is unreasonable.

Accordingly, withdrawal of the rejection of claim 6 under 35 U.S.C. §112, 1st paragraph is respectfully solicited.

As for the rejection to claim 2 as being indefinite, Applicant respectfully points out that the first full paragraph on page 16 of the present specification reads (emphasis added):

“When the switching device Q is off, the second secondary winding 13c of the second secondary circuit SC2 discharges DC power which is smoothed by the rectifier diode D2 and the smoothing capacitor C2. The actions produce the second, relatively high electric power (high consumption) output and at the relatively high voltage Vo2a. The output voltage regulator circuit 19 Converts the incoming second electric power to the predefined voltage Vo2, applying it to the second load L2.”

As such, Applicant submits that the above-noted citation clearly set forth the intended meaning of claim 2. However, in order to expedite prosecution, claim 2 is herein amended so as to more clearly set forth the terms.

Accordingly, withdrawal of the rejection of claim 2 under 35 U.S.C. §112, 2nd paragraph is respectfully solicited.

The Claims Define Patentable Subject Matter

The Office Action rejects:

- (1) claims 1, 2, 7 and 8 are rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,211,579 to Blair (hereafter Blair) in view of U.S. Patent No. 5,541,828 to Rozman (hereafter Rozman);

- (2) claims 3-6 and 9 are rejected under 35 U.S.C. §103(a) as being unpatentable over Blair in view of Rozman and further in view of U.S. Patent No. 5,933,049 to Melse (hereafter Melse);
- (3) claim 10 is rejected under 35 U.S.C. §103(a) as being unpatentable over Blair in view of Rozman and Melse and further in view U.S. Patent No. 4,236,198 to Ohsawa et al. (hereafter Ohsawa); and
- (4) claim 11 is rejected under 35 U.S.C. §103(a) as being unpatentable over Blair in view of Rozman, Melse and Ohsawa and further in view U.S. Patent No. 5,450,308 to Tai(hereafter Tai).

These rejections are respectfully traversed.

Applicant respectfully submits that the combination of Blair and Rozman fails to teach or suggest each and every feature as set forth in independent claim 1.

For example, the Examiner alleges that Blair discloses the specified-voltage sensor section (32) that detects an output from a specified one of the secondary circuits (Vout2). Applicant respectfully disagrees with this assertion.

For instance, Applicants respectfully submits that according to Figure 1 of Blair, the sensor circuit (32) detects all of the output voltages (secondary outputs) Vout2-VoutN, except for the main line Vout1. However, this feature of Blair is quite distinguishable from the present invention because in the present invention the specified-voltage sensor section (17) detects the output voltage of a specified one of the secondary circuits.

Furthermore, Applicant respectfully points out that the structural differences in Blair adds complexity and cost to Blair's circuit, which makes it undesirable in some markets. In contrast, the present invention realizes a switching power supply which reliably provides overcurrent protection at a lower cost.

In addition, the Examiner asserts that Blair teaches that the total power sensor section (converter control circuit 12) detects the total secondary power (Vout2-VoutN). Applicant respectfully disagrees with this assertion.

For example, Applicant respectfully points out that the total secondary power in Blair is not $V_{out2}-V_{outN}$, as asserted by the Examiner. Instead, the total secondary power in Blair is $V_{out1}-V_{outN}$. With that being said, Applicant respectfully points out that Blair fails to teach a control circuit or sensor that detects such a total power.

In addition, the Examiner asserts that the on/off switch 10 of Melse, described in col. 5, lines 29-38, correspond to “quasi-shorting” recited in applicant’s claim 3 (now incorporated into claim 1). However, Applicant respectfully submits that since Blair fails to teach or suggest the total secondary power as mentioned above, the feature “controlling turning on/off of the switching device in accordance with a detection result from the total power sensor section” cannot be taught nor made obvious by the combination of Blair, Rozman, and Melse.

As such, Applicant respectfully submits that Rozman and Melse both fail to make up for the deficiencies found in Blair.

Applicant respectfully submits that neither Blair nor Rozman nor Melse, taken singularly or in combination, (assuming these teachings may be combined, which applicant does not admit) teach or suggest the above noted features.

To establish a *prima facie* case of Obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant’s disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP 706.02(j).

Applicants respectfully submit that the examiner has failed to establish a *prima facie* case of obviousness at least in part because the examiner has failed to show how each and every feature is taught by the cited art.

Applicant respectfully submits that the examiner has failed to show any suggestion or motivation from either the references themselves or in the knowledge generally available to one of ordinary skill in the art why it would be proper to combine the cited references. Instead, the Examiner is merely relying on improper hindsight.

Applicant respectfully submits that the combination of cited art fail to teach or suggest each and every feature as set forth in the claimed invention.

Applicant respectfully submits that independent claim 1 is allowable over the cited art for at least the reasons noted above.

As for each of the dependent claims not particularly discussed above, these claims are also allowable for at least the reasons set forth above regarding their corresponding independent claims, and/or for the further features claimed therein.

Accordingly, withdrawal of the rejection of claims 1-11 under 35 U.S.C. §103(a) is respectfully requested.

Conclusion

In view of the foregoing, Applicant respectfully submits that the application is in condition for allowance. Favorable reconsideration and prompt allowance are earnestly solicited.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact Carolyn T. Baumgardner (Reg. No. 41,345) at (703) 205-8000 **to schedule a Personal Interview.**

Appl. No.: 10/714,893
Amendment dated November 22, 2006
Office Action dated August 24, 2006

Docket No.: 1248-0680P
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If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment from or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §1.16 or under 37 C.F.R. §1.17; particularly, the extension of time fees.

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Respectfully submitted,

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Attachment(s): Abstract of the Disclosure